

服务器连接断线

每5秒钟检查一次用户最后一次发送消息的时间(消息可以定义为):

1. 未登录用户连接建立,尝试登录,尝试注册
2. 登录客户的心跳包,正常消息发送,好友请求,ack消息

如果距离最后一次发送消息的时间超过120秒,服务器定义为用户掉线,关闭连接,储存用户相关信息(已发送给用户,但未得到确认的所有请求,消息)到mysql进行保存

服务器发送信息等待确认表

服务器每次转发其他用户信息,或发送系统通知都会将信息放入到ACK list,等待用户确认,如果用户未确认,则服务器每15秒将list内消息重发一次

用户回复收到信息,则服务器将该信息从ACK list里面删除

注册行为

需要提前注册好表格(然后看)

客户端发送:

```
{"MID":"signupmessageID001","CONTENT": "{\n  \"userName\": \"vincent313\",\n  \"hashValue\": \"thisisapasswordhash\",\n  \"emailAddress\": \"vincent313@foxmail.com\",\n  \"nickName\": \"zhiyong\",\n  \"profilePicture\": \"personalpicture.com/link\",\n  \"location\": \"longyan\",\n  \"personalDescription\": \"cooking man\",\n  \"rsaPublicKey\": \"24sdfqwrwer\" }\", \"TYPE\": \"1\"}
```

```
{"MID":"signupmessageID003","CONTENT": "{\n  \"userName\": \"zhiyong313\",\n  \"hashValue\": \"thisisapasswordhash\",\n  \"emailAddress\": \"vincent313@foxmail.com\",\n  \"nickName\": \"zhiyong\",\n  \"profilePicture\": \"personalpicture.com/link\",\n  \"location\": \"longyan\",\n  \"personalDescription\": \"cooking man\",\n  \"rsaPublicKey\": \"24sdfqwrwer\" }\", \"TYPE\": \"1\"}
```

返回信息

服务器回复:SS成功,SF失败

```
{"CONTENT": "{\n  \"MessageId\": \"signupmessageID003\",\n  \"Content\": \"SS\" }\", \"TYPE\": \"RE_SIGNUP\"}\n{\n  \"MessageId\": \"signupmessageID003\",\n  \"Content\": \"SF\" }\", \"TYPE\": \"RE_SIGNUP\"}
```

登录行为

```
{"MID":"loginmessage0001","CONTENT":  
{"PASS":"thisisapasswordhash","USER":"vincent313"},"TYPE":"2"}  
  
{"MID":"loginmessage0002","CONTENT":  
{"PASS":"thisisapasswordhash","USER":"zhiyong313"},"TYPE":"2"}  
  
返回信息  
登录失败  
{"CONTENT":  
{"MessageId":"loginmessage0001","Content":"LF"},"TYPE":"RE_SIGNUP"}  
登录成功  
{"CONTENT":  
{"MessageId":"loginmessage0002","Content":"LS"},"TYPE":"RE_SIGNUP"}
```

获得用户信息

```
{"MID":"getuserinfo0010001","CONTENT":"zhiyong313","TYPE":"3"}  
  
如果未登录,服务器不做任何动作  
已登录,服务器查询成功,返回信息  
{"CONTENT":{"MessageId":"getuserinfo0010001","Content":  
{"userName":"zhiyong313","emailAddress":"vincent313@foxmail  
.com","nickName":"zhiyong","profilePicture":"personalfil  
epicture.com/link","location":"longyan","personalDescription\  
":"cooking  
man","rsaPublicKey":"24sdfqwrwer"},"TYPE":"RE_GETUSER_SUC"}  
  
查询失败(无该用户)返回  
{"CONTENT":{"MessageId":"getuserinfo0010001","Content":"User could not  
be found"},"TYPE":"RE_GETUSER_FAILED"}
```

添加好友

发起添加好友请求

```
1.  
zhiyong313 登录发起添加好友请求 zhiyong313->vincent313  
{"CONTENT":  
{"messageId":"friendsrequest001","sender":"zhiyong313","receiver":"vi  
ncent313","content":"tianjiahaoyoushenqing","type":"1"},"TYPE":"6"}  
  
2.  
服务器收到请求后回复 zhiyong313  
{"CONTENT":  
{"MessageId":"friendsrequest001","Content":"1652791027673"},"TYPE":"RE_  
FRI_REQ"}
```

接收人通过好友请求

当vincent313在线收到好友请求. 如果用户不在线, 当用户上线后, 收到下列消息

```
{"CONTENT": "}
```

```
{"messageId\":"friendsrequest001\","sender\":"zhiyong313\","receiver\":"vincent313\","time\":"1652791027673\","content\":"tianjiahaoyoushenqing\","type\":"1\"}, {"TYPE": "6"}
```

vincent313 需要回复服务器ack消息, 否则服务器将重复发送好友消息

```
{"CONTENT": "{\\"MessageId\":"friendsrequest001\"}", {"TYPE": "5"}
```

vincent313同意添加好友

```
{"CONTENT": "}
```

```
{"messageId\":"friendsrequest001\","sender\":"zhiyong313\","receiver\":"vincent313\","content\":"tianjiahaoyoushenqing\","type\":"2\"}, {"TYPE": "6"}
```

如果添加好友信息存在于服务器

服务器回复vincent313

```
{"CONTENT": "}
```

```
{"MessageId\":"friendsrequest001\","Content\":"1652797968489\"}, {"TYPE": "RE_FRI_REQ"}
```

接收人拒绝好友请求

如果vincent313, 拒绝好友请求

```
{"CONTENT": "}
```

```
{"messageId\":"friendsrequest001\","sender\":"zhiyong313\","receiver\":"vincent313\","content\":"tianjiahaoyoushenqing\","type\":"3\"}, {"TYPE": "6"}
```

服务器回复ACK{"CONTENT": "}

```
{"MessageId\":"friendsrequest001\","Content\":"1652799527392\"}, {"TYPE": "RE_FRI_REQ"}
```

发起好友请求的人收到服务器通知(添加成功)

zhiyong313 登录后收到服务器消息

```
{"CONTENT": "}
```

```
{"messageId\":"friendsrequest001\","sender\":"vincent313\","receiver\":"zhiyong313\","time\":"1652797968489\","content\":"tianjiahaoyoushenqing\","type\":"2\"}, {"TYPE": "6"}
```

zhiyong313 回复服务器ACK消息

```
{"CONTENT": "{\\"MessageId\":"friendsrequest001\"}", {"TYPE": "5"}
```

发起好友请求的人收到服务器通知(添加失败)

zhiyong313 登录后收到

```
{"CONTENT": "  
{\\"messageId\\":\\"friendsrequest001\\",\\"sender\\":\\"vincent313\\",\\"receiver\\":\\"zh  
iyong313\\",\\"time\\":\\"1652799527392\\",\\"content\\":\\"tianjiahaoyoushenqing\\",\\"ty  
pe\\":\\"3\\"}", "TYPE": "6"}
```

zhiyong313 回复服务器ack

```
{"CONTENT": "{\\"MessageId\\":\\"friendsrequest001\\"}", "TYPE": "5"}
```

删除好友

vincent313 删除 zhiyong313

```
{"CONTENT": "  
{\\"messageId\\":\\"deletefriend001\\",\\"sender\\":\\"vincent313\\",\\"receiver\\":\\"zhiy  
ong313\\",\\"content\\":\\"shanchuhaoyou\\",\\"type\\":\\"4\\"}", "TYPE": "6"}
```

服务器回复ACK, 既删除成功

```
{"CONTENT": "  
{\\"MessageId\\":\\"deletefriend001\\",\\"Content\\":\\"1652798905397\\"}", "TYPE": "RE_FR  
I_REQ"}
```

发送消息格式

发送方发送消息

zhiyong313 发送给 vincent313

```
{"CONTENT": "  
{\\"messageId\\":\\"normalmessage001\\",\\"sender\\":\\"zhiyong313\\",\\"receiver\\":\\"vin  
cent313\\",\\"content\\":\\"first message test 000001\\"}", "TYPE": "4"}
```

服务器返回给发送方的ACK

如对方非好友-->发送失败:

```
{"CONTENT": "  
{\\"MessageId\\":\\"normalmessage001\\",\\"Content\\":\\"MF\\"}", "TYPE": "RE_MESSAGE"}
```

对方是好友--->发送成功:

```
{"CONTENT": "  
{\\"MessageId\\":\\"normalmessage001\\",\\"Content\\":\\"MS\\"}", "TYPE": "RE_MESSAGE"}
```

接收方收到消息

收到消息: {"CONTENT": "

```
\\"messageId\\":\\"normalmessage001\\",\\"sender\\":\\"zhiyong313\\",\\"receiver\\":\\"vin  
cent313\\",\\"time\\":\\"1652804254778\\",\\"content\\":\\"first message test  
000001\\"}", "TYPE": "4"}
```

回复服务器ACK: {"CONTENT": "{\\"MessageId\\":\\"normalmessage001\\"}", "TYPE": "5"}

